AUTOMATED CHEST COMPRESSION APPARATUS

This application is a continuation of U.S. Application 09/188,065 filed November 8, 1998, now abandoned.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to an automated chest compression apparatus for the automated administration of CPR.

2. Description of the Related Art

Each year there are more than 300,000 victims of cardiac arrest. Conventional CPR techniques, introduced in 1960, have had limited success both inside and outside of the hospital, with only about a 15% survival rate. Accordingly the importance of improving resuscitation techniques cannot be overestimated. In the majority of cardiac arrests, the arrest is due to ventricular fibrillation, which causes the heart to immediately stop pumping blood. To treat ventricular fibrillation, defibrillation is administered which involves the delivery of a high energy electric shock to the thorax to depolarize the myocardium, and to allow a perfusing rhythm to restart. If, however, more than a few minutes pass between the onset of ventricular fibrillation and the delivery of the first defibrillation shock, the heart may be so deprived of metabolic substrates that defibrillation is unsuccessful.

The role of CPR is to restore the flow of oxygenated blood to the heart, which may allow defibrillation to occur. A further role of CPR is to restore the flow of oxygenated blood to the brain, which may prevent brain damage until their heart can be restarted. Thus, CPR is critical in the treatment of a large number of patients who fail initial defibrillation, or who are not candidates for defibrillation.